

AMENDMENTS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Presently amended) A method for reducing the infectivity of a virus comprising contacting said virus with a first anti-viral peptide, said peptide comprising a chimeric theta defensin peptide or amphipathic alpha helical structure in a lipid environment selected from the group consisting of SEQ ID NO:31 and SEQ ID NO:32.
2. (Canceled) The method of claim 1, wherein said first anti-viral peptide is a naturally-occurring peptide.
3. (Canceled) The method of claim 2, wherein said naturally-occurring peptide is a cathelicidin.
4. (Canceled) The method of claim 3, wherein said cathelicidin is selected from the group consisting of a mouse cathelicidin, a monkey cathelicidin, a human cathelicidin, and a sheep cathelicidin.
5. (Canceled) The method of claim 1, wherein said first anti-viral peptide is a non-naturally occurring peptide.
6. (Canceled) The method of claim 1, wherein said peptide is about 13 to about 35 residues in length.
7. (Canceled) The method of claim 5, wherein said peptide contains a non-naturally occurring amino acid.
8. (Original) The method of claim 1, wherein the virus is an enveloped virus.

9. (Original) The method of claim 1, wherein the virus infects humans and is selected from the group consisting of HIV, HSV-1, HSV-2, EBV, varicella zoster virus, CMV, herpesvirus B, HHV6, HHV8, respiratory syncytial virus (RSV), influenza A, B and C viruses, hepatitis A, hepatitis B, hepatitis C, hepatitis G, smallpox, vaccinia virus, Marburg virus, ebola virus, dengue virus, West Nile virus, hantavirus, measles virus, mumps virus, rubella virus, rabies virus, yellow fever virus, Japanese encephalitis virus, Murray Valley encephalitis virus, Rocio virus, tick-borne encephalitis virus, St. Louis encephalitis virus, chikungunya virus, o'nyong-nyong virus, Ross River virus, Mayaro virus, human coronaviruses 229-E and OC43, vesicular stomatitis virus, sandfly fever virus, Rift Valley River virus, Lassa virus, lymphocytic choriomeningitis virus, Machupo virus, Junin virus, HTLV-I and -II.
10. (Original) The method of claim 1, wherein the virus infects sheep and is selected from the group consisting of border disease virus, Maedi virus, and visna virus.
11. (Original) The method of claim 1, wherein the virus infects cattle and is selected from the group consisting of bovine leukemia virus, bovine diarrhea virus, bovine lentivirus, and infectious bovine rhinotracheitis virus.
12. (Original) The method of claim 1, wherein the virus infects swine and is selected from the group consisting of swinepox, African swine fever virus, hemagglutinating virus of swine, hog cholera virus, and pseudorabies virus.
13. (Original) The method of claim 1, wherein the virus infects horses and is selected from the group consisting of bovine leukemia virus, bovine diarrhea virus, bovine lentivirus, and infectious bovine rhinotracheitis virus.
14. (Original) The method of claim 1, wherein the virus infects cats and is selected from the group consisting of feline immunodeficiency virus, feline leukemia virus, and feline infectious peritonitis virus.

15. (Original) The method of claim 1, wherein the virus infects fowl and is selected from the group consisting of Marek's disease virus, turkey bluecomb virus, infectious bronchitis virus of fowl, avian reticuloendotheliosis, sarcoma and leukemia viruses.
16. (Canceled) The method of claim 2, wherein the naturally-occurring peptide is selected from the group consisting of SEQ ID NOS: 1, 2, 3, 4, 5, 6 and 7.
17. (Canceled) The method of claim 5, wherein the non-naturally-occurring peptide is selected from the group consisting of SEQ ID NOS: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24.
18. (Original) The method of claim 1, further comprising contacting said virus with a second anti-viral agent.
19. (Original) The method of claim 18, wherein said second anti-viral agent is a second anti-viral peptide distinct from said first anti-viral peptide.
20. (Original) The method of claim 18, wherein said second anti-viral agent is non-peptide pharmaceutical agent.
21. (Original) The method of claim 20, wherein said non-peptide pharmaceutical agent is selected from the group consisting of a protease inhibitor, a nucleoside analog, a viral polymerase inhibitor, and a viral integrase inhibitor.
22. (Original) The method of claim 1, wherein said first anti-viral peptide is contacted with said virus at a concentration of about 0.1 to about 50 μg per ml.
23. (Original) The method of claim 22, wherein said first anti-viral peptide is contacted with said virus at a concentration of about 1 to about 25 μg per ml.

24. (Original) The method of claim 23, wherein said first anti-viral peptide is contacted with said virus at a concentration of about 3 to about 10 μg per ml.
25. (Original) The method of claim 1, wherein said virus is located in a tissue or fluid sample.
26. (Original) The method of claim 25, wherein said tissue or fluid sample is selected from the group of whole blood, platelets, plasma, and packed blood cells.
27. (Original) The method of claim 1, wherein said virus is located in a living subject.
28. (Original) The method of claim 27, wherein said first anti-viral peptide is administered topically.
29. (Original) The method of claim 27, wherein said first anti-viral peptide is administered to a body cavity.
30. (Original) The method of claim 27, wherein said first anti-viral peptide is administered to a mucosal membrane.
31. (Original) The method of claim 27, wherein said first anti-viral peptide is administered by injection.
32. (Original) The method of claim 27, wherein said first anti-viral peptide is administered by inhalation.
33. (Original) The method of claim 27, wherein said first anti-viral peptide is administered orally.
34. (Original) The method of claim 27, wherein said first anti-viral peptide is administered to a wound site.

35. (Original) The method of claim 27, wherein said patient is immunosuppressed.
36. (Original) The method of claim 27, wherein said subject is not infected with said virus, and first anti-viral peptide is administered prior to the virus contacting the subject.
37. (Original) The method of claim 27, wherein said first anti-viral peptide is administered subsequent to the virus contacting the subject.
38. (Original) The method of claim 37, wherein said subject is chronically infected with said virus.
39. (Original) The method of claim 37, wherein said subject is latently infected with said virus.
40. (Original) The method of claim 37, wherein said subject is acutely infected with said virus.
41. (Canceled) An anti-viral composition comprising a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure or a theta defensin peptide in a lipid environment, and a second anti-viral agent.
42. (Canceled) The composition of claim 41, wherein said second anti-viral agent is a second anti-viral peptide distinct from said first anti-viral peptide.
43. (Canceled) The composition of claim 41, wherein said second anti-viral agent is a non-peptide pharmaceutical agent.
44. (Canceled) The composition of claim 43, wherein said non-peptide pharmaceutical agent is selected from the group consisting of a protease inhibitor, a nucleoside analog, a viral polymerase inhibitor, and a viral integrase inhibitor.

45. (Canceled) The composition of claim 41, formulated for topical administration.
46. (Canceled) The composition of claim 41, formulated for inhalation.
47. (Canceled) The composition of claim 41, formulated for administration to a mucosal membrane.
48. (Canceled) The composition of claim 41, wherein said composition is located in a sterile i.v. bag.
49. (Canceled) The composition of claim 41, wherein said composition is located in a sterile syringe.
50. (Canceled) The composition of claim 41, wherein said composition is located in sterile tubing.
51. (Canceled) An anti-viral composition comprising a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide, and a contraceptive agent.
52. (Canceled) The composition of claim 51, wherein said composition is located in a condom.
53. (Canceled) The composition of claim 51, wherein said composition is formulated for use in a diaphragm.
54. (Canceled) The composition of claim 51, wherein said composition is formulated for intra-vaginal administration.

55. (Canceled) The composition of claim 51, wherein said contraceptive agent is spermicidal agent or a sperm anti-motility agent.
56. (Canceled) A method of rendering a virus-contaminated tissue or fluid sample safe for use comprising contacting said fluid sample with a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
57. (Canceled) A method for reducing the number of infectious virus particles in a population of viruses comprising contacting said virus population with a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
58. (Canceled) A method of protecting a subject from viral infection comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
59. (Canceled) A method for treating a subject with a viral infection comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
60. (Canceled) A method for preventing a recurrent viral infection in a subject harboring a latent virus comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
61. (Canceled) A method for controlling virus spread within a virally-infected subject comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.

62. (Canceled) A method for reducing viral burden in a virally-infected subject comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
63. (Canceled) A method for reducing virus shed from a virally-infected subject comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
64. (Canceled) A method for reducing the percentage of virally-infected subjects in a population comprising administering to said population, regardless of viral infection status, a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
65. (Canceled) A method of inducing latency in a virally-infected subject comprising administering to said subject a first anti-viral peptide, said peptide comprising an amphipathic alpha helical structure in a lipid environment or a theta defensin peptide.
66. (Canceled) The method of claim 1, wherein said first anti-viral peptide is encoded by a nucleic acid that is contained in an expression construct under the control of a promoter active in eukaryotic cells, wherein said expression construct is delivered into a host cell, and said cell supports production and secretion of said first anti-viral peptide which contacts said virus.
67. (Canceled) The method of claim 66, wherein said expression construct is an adenovirus.
68. (Canceled) The method of claim 66, wherein said host cell is infected by said virus.
69. (Canceled) The method of claim 66, wherein said nucleic acid further encodes an intracellular targeting signal fused to said first anti-viral peptide.

70. (Canceled) The method of claim 69, wherein said intracellular targeting signal targets said peptide to one or more of the endoplasmic reticulum, the Golgi apparatus and/or the cell surface.